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Attorneys for Plaintiff

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF OREGON

HOPE GLENN, as the Personal Representative of the ESTATE OF LUKUS GLENN,)	Civil Case No. 08-CV-950 MO
)	
Plaintiff,)	DECLARATION OF DR. LISA FOURNIER, PH.D.
v.)	
WASHINGTON COUNTY, et al,)	
)	
Defendants.)	
)	

I, Dr. Lisa Fournier, Ph.D. state under penalty of perjury:

1. I am currently an associate professor and the director of experimental training in the psychology department at Washington State University. I received my Ph.D. in Experimental Psychology at the University of Illinois at Urbana-Champaign in 1993 and completed a two-year post doc in cognitive psychophysiology at the same university. My research is focused primarily on attention, memory, perception and action. The courses I currently teach include research methods (which covers research design, hypothesis testing, measurement, internal and external validity/reliability, and ethics), history of psychology, and a graduate course in cognitive psychology. I am currently an associate editor for two psychology journals (peer-reviewed), a consultant for the USAF, and I have published 23 articles in peer-reviewed journals.

2. I was asked by Dave Park of Elliott & Park, Attorneys at Law, in Portland, to examine whether William Lewinski's testimony in the LUKUS Glenn vs. Washington County Civil case is based on reliable data, is a product of reliable principles and methods, and whether William Lewinski has applied them reliably to the facts of this case. I was also asked to evaluate whether the media outlets in which William Lewinski has published his data (relevant to this case) fit the definition of "peer-reviewed journals".

3. My evaluation focuses mainly on the validity and reliability of the data upon which William Lewinski bases his expert opinions in this case. I also address whether the data published by William Lewinski fits the definition of being "peer reviewed", and whether the knowledge demonstrated in Mr. Lewinski's published papers qualify him as an expert in mental chronometry and biomechanics (which is the area of expertise required for reliable information regarding the timing of mental and motor events) as they apply in this case. I will also evaluate

some of the opinions made in Lewinski's report that are not based on reliable evidence as these opinions are either 1) not consistent with scientific research literature, or are 2) based on Mr. Lewinski's unreliable research data, or are 3) not logically connected to the events in this case. Whether Mr. Lewinski's testimony is based on relevant and reliable data is, in my opinion, of upmost importance as many logical claims (or pseudo-logical claims) can be made that are not supported by scientifically reliable data.

4. The materials sent to me by Dave Park included:

- (a) A copy of the case report
- (b) A copy of William Lewinski's report dated November 4, 2009
- (c) A transcript of the 911 call
- (d) A copy of William Lewinski's declaration in a different case [A declaration in support of defendant's opposition to plaintiff's motion in limine to exclude defense experts that was filed in the *Lopez vs. City of Chula Vista*; Case No. 07-CV-01272-WQH-BLM. The materials used for this declaration also include the following (originally provided by John Drake from the United States Attorneys Office in October, 2011 for a declaration I prepared that was filed in the *United States v. Karl F. Thompson, Jr.*, US District Court, Eastern District of Washington, Case No 09-CR-088 FVS):

(e) A copy of an article titled "The attention study: A study on the presence of selective attention in firearms officers" by William Lewinski published in *Law Enforcement Executive Forum* (2008). See Attachment 1.

(f) A copy of a newsletter from "Force Science News" #176 and an online link to the Discovery Channel which features "The Force Science Exhaustion Study" conducted

by William Lewinski and colleagues which attempts to examine the relationship between memory recall and exhaustion. See Attachment 2.

(g) A copy of a magazine article titled “Biomechanics of lethal force encounters—officer movements” by W. Lewinski published in *The Police Marksman* magazine (2002). See Attachment 3.

(h) A copy of a magazine article titled “shooting drills for the police sniper” by Lewinski & Hudson, published in *The Police Marksman* magazine (2003). See Attachment 4.

(I) A copy of an article titled “An examination of police officer mental chronometry: “I swear... I don’t know how I shot him in the back” by Bumgarner, Lewinski, Hudson, and Sapp published in *The Scene: Journal of the Association for Crime Reconstruction* (date unknown). See Attachment 5.

(j) A copy of a paper titled “Biomechanics of lethal force encounters: Officer’s and subject’s movement and speed (a compilation of three studies) by Lewinski and Wilkins presented at the *Academy of Criminal Justice Sciences Annual Conference* in Boston, MA (2003). See Attachment 6.

(k) A copy of an article titled “Command types used in police encounters” by Schwarzkopf, Houlihan, Kolb, Lewinski, Buchanan, and Christenson published in *Force Science Forum* (a medium for delivery of research conducted and supported by the Force Science Research Center headed by William Lewinski). See Attachment 7.

(l) A copy of William Lewinski’s dissertation published by University Microfilms International as partial fulfillment for a Ph.D. in Police Psychology from Union Institute & University in Cincinnati Ohio (3 year program, courses and dissertation only; no

master's thesis or qualifying exams as in traditional 5-year program). See Attachment 8.

(m) A copy of an article titled "A survey of the research on human factors related to lethal force encounters: Implications for law enforcement training, tactics, and testimony" by Honig & Lewinski published in *Law Enforcement Executive Forum* (2008). See Attachment 9.

5. This declaration is an evaluation of Mr. William Lewinski's qualifications as an expert witness in this case. This declaration is based on my review of the research conducted by William Lewinski (relevant to the case), the quality of the media outlets in which his research (relevant to the case) is published, and reliability of statements in his report.

I. Review of research conducted by William Lewinski relevant to the current case.

6. Based on my review of the research conducted by William Lewinski (Attachments 1-8 and a survey article 9) listed above, I have concluded that this research (with the exception of 7 above) is not internally valid or reliable due to 1) flaws (confounds) in research methodology, 2) the lack of statistical comparisons among conditions, and/or 3) conclusions drawn based on manipulations that were not incorporated in the research design. Surprisingly, most of the research described below ignores basic concepts in research design, hypothesis testing, internal validity and reliability which are concepts covered in an undergraduate research design course. In addition, research on biomechanics and mental chronometry (articles 3, 4, 5, and 6 above) use faulty logic to separate and estimate the time course of different cognitive (mental) and motor processes, which indicates a failure to understand biomechanics and mental chronometry in general and as they apply to this case. A brief summary of why each of the above studies is invalid and unreliable is presented below. A more detailed summary is provided (in attachments)

for studies that had multiple validity/reliability problems, and that may be used as direct evidence to support William Lewinski's opinions in this case.

7. First, in the four studies (3, 4, 5, and 6 listed above) that investigate biomechanics of lethal force encounters, shooting drills, movement and speed, and mental chronometry, there are no statistical comparisons to determine whether one type of motion/reaction time event was significantly, and hence reliably, different from another. When comparing mean reaction times (or any other measure based on means), one must take into account the variability around the mean to determine whether one mean is significantly different than another. Also one must show that the probability that this difference is due to chance is very small (less than 5%). Because no such statistics were reported, one cannot claim that the results and the conclusions drawn from the results in these articles are valid or reliable. Unfortunately the author(s) of these articles make several unsubstantiated claims about differences in movement times/trigger reaction times in different event scenarios even though no such statistical analyses were conducted. The importance of reporting statistics (accurate statistics) to show that your findings are valid/reliable is basic knowledge learned in an undergraduate research methods course. Unfortunately, similar problems exist in most of the other research reviewed below.

8. Moreover, in these articles (3, 4, 5, and 6), an invalid and hence unreliable method of calculating the time required to perform different cognitive (mental) processes and/or movements is used (e.g., the time required to perceive, decide, and react). This invalid procedure, known as the "subtractive method" originally promoted by Donders (1968; 1969) was used to make specific claims about the duration of different processes that occur between the onset of perceptual processing and a final motor response (mental chronometry). For example,

Mr. Lewinski states in his paper (see # 5 listed above):

“The average trigger pull reaction time to a simple light stimulus was 31/100ths of a second. Because of the equipment, we were able to break the reaction time up into two separate components. The act of seeing the green light, processing that information and sending that information to the finger took 25/100ths of a second. The average time for mechanical action to actually pull the trigger was 6/100ths of a second.”

This subtractive logic is invalid and unreliable because it assumes that cognitive and motor processes are serial and discrete in nature (e.g., the perceptual process, such as perceiving a light, finishes before another process, such as pulling a trigger, begins). In contrast to this assumption, research shows that many processes overlap in time, and one process is not necessarily completed before it can send information to the next process (e.g., information from the perceptual process, such as perceiving a light, can begin to influence the next process, such as pulling the trigger, before the light (or meaning of the light) has been fully analyzed. That is, information transfer among different processing stages (e.g., perception, decision, and response) is continuous in nature, not serial and discrete (e.g., McClelland, 1979; Gratton, Bashore & Eriksen, 1985; Eriksen & Schultz, 1979; Smid et al., 1990; Eriksen, Coles, Morris, & Ohara, 1985). Thus, one cannot subtract the apparent time to complete one process in order to determine the time it takes to complete another when measuring reaction time. The unreliability of the “subtraction logic” when measuring reaction time is taught in graduate-level courses. Thus, I was very surprised to see it both promoted and used in these studies. To see this “subtraction logic” promoted and used in Mr. Lewinski’s research indicates that Mr. Lewinski does not understand mental chronometry in general, and hence he cannot make reliable statements about mental chronometry as it applies to this case or any other case. This point is

discussed in more detail in the following attachments, see Attachment 10 and Attachment 11 which contain a more in-depth analysis of papers “An examination of police officer mental chronometry: “I swear... I don’t know how I shot him in the back” (article 5 above) and “Biomechanics of lethal force encounters—officer movements” (article 3 above), respectively.

9. Second, in the study (1 listed above) investigating the focus of attention in firearm officers, there were several flaws (confounds) in this study that make the study invalid and unreliable. Because several major flaws were found in the experimental design and because many of the conclusions that were drawn by the author were not possible based on the experimental design and analyses, a more detailed review of this article is attached (see Attachment 12). In brief: 1) There were no statistical comparisons of the mean frequencies for incidences recalled or for recall errors assigned to different “attentional processes”, and hence one cannot reliably claim that officers were engaged in one particular “attentional process” more frequently than another (e.g., external focused attention vs. external broad attention). 2) There was no control condition or control group in which attention (assessed by memory recall) was measured during a non-conflict event to serve as a baseline to determine whether a conflict event influenced/changed/debilitated the allocation of attention relative to a non-conflict situation. Thus, any statements suggesting that attention (or memory) was affected differently in the high conflict situation (or that the stressful situation in this scenario affects attention in any way that is different from any other scenario) is not valid based on this data. 3) The statement that “officers were externally tunneled specifically on items/behavior that were crucial for their performance” is not valid or reliable because memory recall data was not coded or analyzed based on whether it was “crucial” or “not crucial” to performance—all memory recall data was recorded regardless of

this distinction. Here, conclusions are drawn that are not relevant to the data collected. 4) There was no mention or statistical analysis showing that the three “graders” had assigned each of the memory-recall events from each officer consistently to the different “attentional process” categories. That is, inter-rater reliability was not evaluated to ensure reliability of the measure. 5) It is important to mention that while accurate memory recall for events suggests that this information was previously attended, it does not mean that items which are not recalled from memory were not attended. The author erroneously makes the claim that what is recalled or not recalled (or not correctly recalled) can be used as a basis of what was and was not attended. Such a claim is not valid or reliable based on the methods used in this study because memory recall was assessed which does not directly assess the allocation of attention. Such an error suggests that Mr. Lewinski does not have a clear understanding of the differences between attention processes and memory processes. Although there are other problems concerning the sample size and unequal observations in each condition that also challenge the validity of this study and reliability of the data, simply having one of the violations described above is enough to show that the data and interpretations drawn from these data are unreliable.

10. Third, the Force Science Exhaustion Study (2 listed above—Force Science newsletter) failed to statistically analyze differences in the frequency of memories accurately reported by officers that were exerted (exerters) compared to officers that were not exerted (control condition) during a “threat scenario”. Thus, the authors’ claim that attention or memory is influenced by fatigue/exertion is not valid or reliable. Also, the authors’ suggest that “the more exhausted officers were, the less accurate their estimates [memories] tended to be”. Importantly, there was no data or statistics to validate this claim. In other words, the conclusions drawn were

not related to the data collected. Because this study is potentially relevant to the current case, a more detailed analysis of this study is attached (see Attachment 13). Moreover, the officers ages varied greatly and were not matched in terms of age or baseline heart rate before assigning them to the different conditions (e.g., exerter/non-exerter). Because the samples represented in the different conditions differed before the start of the experiment, it is not possible to draw any conclusions between these conditions. This major confound makes this data and any conclusions drawn from it invalid and unreliable. Finally, because this study is only assessing memory, one cannot make a statement about what was NOT attended. It is possible that information was attended, but was forgotten. In other words, what is explicitly remembered does indicate that this information was attended, but what is attended does not determine what will be remembered. However, the authors claim that what was “filtered out” or inhibited by attention can be determined by what was not remembered. Again, this demonstrates that Mr. Lewinski does not have the knowledge to distinguish between attentional processes and memory processes. In summary, one can not reliably draw conclusions from this study due to lack of reliability established through statistical analyses and due to some of the claims made concerning attention that cannot be validated since memory (not attention) was measured. Even if the results from this study had been reliable, it could not be reliably used for the current case as memory in this study was assessed immediately after the “threat” scenario. In the current case, memory of the officers was not assessed immediately after the shooting incident.

11. Fourth, I provided a peer review of William Lewinski’s published dissertation (see Attachment 14). I believe that this dissertation demonstrates a lack of knowledge William Lewinski has concerning research design and a lack of understanding he has in terms of what can

and cannot be concluded based on one's research design. The study presented in his dissertation violates many of the research design and validity/reliability issues covered in an undergraduate research methods course. Not only would such a dissertation be rejected in my department, it would not receive a passing grade in my undergraduate research methods course. Furthermore, this dissertation provides evidence (as do several of Mr. Lewinski's other research studies) that his conclusions are disconnected from the data he has collected.

12. Fifth, my peer evaluation of the article discussing command types used in police encounters is overall positive. I found no obvious threats to internal validity or reliability. The authors presented appropriate data analyses, conclusions based on the design, inter-rater reliability measures, and discussed potential limitations of the design. This study was in stark contrast to the other studies discussed above. (Note that in this study, Mr. Lewinski was not among the first few authors, and hence likely did not contribute as much to this study compared to the others.)

13. Sixth, the survey research on lethal force (listed as 9 above) had a few unreliable statements because they were based on research (described above) shown to be unreliable or on not-yet published research (and hence its reliability could not be evaluated). For example, on page 130 data is cited from Lewinski and Hudson (2003) and false interpretations based on these unanalyzed data are incorporated in the text (see "lessons learned" on page 130). Also, there is no published data that I am aware of to support the strong claim that: "failing to identify a weapon when one exists results in an increase in seeing a weapon when none exists" (page 130). Moreover, the statement that "long-term memory is limited in capacity" is false (page 132). An abundance of research evidence indicates that long-term memory is unlimited in capacity.

Unlimited capacity of long-term memory does not mean, as the author's erroneously state, that one would commit all observations to long-term memory. This statement is also false as other processes (e.g., attention) would limit the amount of information stored in long-term memory. These erroneous statements suggest that Mr. Lewinski has a limited understanding of long-term memory and a limited understanding of how other cognitive processes (attention and working memory) interact with long-term memory. The capacity of long-term memory, and how other cognitive processes interact with long-term memory, is information taught in both undergraduate- and graduate-level cognitive courses.

14. This article (9 above) correctly suggests that stress can facilitate some memories. I am less certain about the statement that the facilitation of some memories lead to the cost of remembering others. Also, I could not find any published studies that examine whether false memories related to a stressful incident (that continues to impose stress) is reduced when recall of the stressful event occurs sooner vs. later after the event (i.e., immediately after, 24 hours, or 48 hours afterwards). Most research suggests that recall is poorer and false memories increase when more vs. less time passes after the event, regardless of stress. Also, the research summarized in this article does not include any research that suggests false memories affect the sequencing of events, which is directly relevant to the current case (i.e., deputy Gerba's recorded interview). With the exceptions above, I found most of the summaries of research related to attention and memory to be accurate (based on my knowledge of the literature). However, the recommendations made by the authors, in terms of how to reduce memory errors, were not supported by reliable, empirical research. Although the authors make recommendations in this article that are not empirically supported, most of the information (with the major exceptions above) was based on empirical

research published in peer-reviewed journals.

15. In summary, although the author(s) in the above studies (except for survey article, labeled 9 above and the study on command types, labeled 7 above) often describe results that we may believe are logical, there are no empirical bases underlying them. Drawing scientific conclusions on logic alone, without empirical data based on good research practices and appropriate analyses, is nothing more than pseudoscience. It is my opinion that the data reported in these studies, and in most cases the methodologies used, were not internally valid or reliable. The research studies above (except for 7) ignore basic concepts in research design, hypothesis testing, internal validity and reliability which are concepts covered in an undergraduate research design course. In addition, the “subtractive” method used in Mr. Lewinski’s chronometry papers (3, 4, 5, and 6) is invalid and unreliable. The unreliability of this method, as it applies to reaction time data, is typically taught in graduate-level courses. Based on my evaluation of Mr. Lewinski’s publications, Mr. Lewinski does not have a clear understanding of basic research methods or a basic understanding of mental chronometry/biomechanics. Mr. Lewinski also has a spotty understanding of attention and memory, and he has made several unreliable claims in his research/survey article related to these processes. It is my opinion that the data and conclusions drawn from Lewinski’s research studies are unreliable and cannot be applied reliably to the current court case or any other case in the court of law. Moreover, it is my opinion that the often loose connection between data observation and conclusions drawn is sufficient to call into question Mr. Lewinski’s reliability as an expert witness in general.

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II. Evaluation of whether William Lewinski's research is published in "peer-reviewed" journals.

16. Research that is published in peer-review journals is usually an indication of good quality research. William Lewinski claims in a declaration in the case of *Lopez vs. City of Chula Vista*; Case No. 07-CV-01272-WQH-BLM (see point 5) that every project written by him and his firm or in collaboration with other colleagues has been peer-reviewed and published in peer-reviewed journals. However, based on my evaluation of the content in each of Mr. Lewinski's publications (listed in section 1 of this declaration) and the journals in which they are published, his statement is false.

17. I will first define peer review, peer-reviewed articles, and peer-reviewed journals. Based on these definitions, I classified which of Mr. Lewinski's published papers (listed in section 1 of this declaration) are peer-reviewed and which are not.

Definitions: Peer review is the evaluation of creative work or performance by other people in the same field (usually practitioners and/or academics in the field) in order to maintain or enhance the quality of the work or performance in that field. Peer review utilizes the independence, and in some cases the anonymity, of the reviewers in order to discourage cronyism (i.e., favoritism shown to relatives and friends) and obtain an unbiased evaluation. Typically, the reviewers are not selected from among the close colleagues, relatives or friends of the creator or performer of the work, and potential reviewers are required to disclose any conflicts of interest. Peer-reviewed articles (or refereed articles) primarily appear in academic, scientific or other scholarly publications and are judged by an impartial panel of two or more experts in the field. Peer review is done by someone other than those employed by the publication and by experts

who are not part of the Editorial Staff. The judgment criteria for any peer-review article varies depending on the publication and subject matter, but peer reviewers (or referees) primarily focus on ensuring that an article is factually accurate, provides new information in a specified field and meets the proofreading and editorial guidelines of the publication. Experts on a subject, chosen by the journal's editor, check the manuscript for accuracy and completeness (i.e., validate methodology, check assumptions, procedures, and results) to assure that it meets the research standards of the discipline (note: standards are consistent across most academic, peer-reviewed journals, but they can vary widely across non-academic disciplines). The goal of peer-reviewed publications is to ensure that experts in the field can examine and assess the quality of articles before they are published. It is based on the concept that a larger and more diverse group of people will usually find more weaknesses and errors in a work and will be able to make a more impartial evaluation of it than will just the person or group responsible for creating the work.

Peer-reviewed journals are usually academic and scientific periodicals. Before an article is deemed appropriate to be published in a peer-reviewed journal, it must undergo the following process (which is standard procedure for these journals). The author of the article must submit it to the journal editor who forwards the article to experts in the field. Because the reviewers specialize in the same scholarly area as the author, they are considered the author's peers (hence "peer review"). These impartial reviewers are charged with carefully evaluating the quality of the submitted manuscript. If the manuscript reports empirical data (is not simply a summary of research in a field of study), the peer reviewers check the manuscript for accuracy and assess the validity and reliability of the research methodology and procedures. Thus, the research article must provide a sufficient description of the methodology and procedures and data analysis in

order for peers to evaluate the quality of the work. If appropriate, reviewers suggest revisions. If the reviewers find the article lacking in scholarly validity and rigor, they reject it. One way to assess the quality of a peer-review journal is its impact score (which can range from 0-10; 10 represents extremely high impact, but impact scores of 2 or 3 are also considered good). An example of quality peer-review journals that publish applied research are the: *Journal of Applied Psychology* (5 year impact score of 6.73), *Journal of Experimental Psychology: Applied* (5 year impact score of 2.91), *Human Movement Science* (5 year impact score of 2.5), and *Cognitive Psychology* (5 year impact score of 5.45). (Impact scores taken from *Journal Citation Reports*, 2010).

Classification of William Lewinski's articles relevant to current case:

Note: No impact score was listed for Mr. Lewinski's articles (1-9 listed in the first section of this declaration) in *Journal Citation Reports* (2010).

Possibly Peer Reviewed*

1. "The attention study: A study on the presence of selective attention in firearms officers" by William Lewinski published in Law Enforcement Executive Forum (2008).
2. An article titled "A survey of the research on human factors related to lethal force encounters: Implications for law enforcement training, tactics, and testimony" by Honig & Lewinski published in Law Enforcement Executive Forum (2008). Law Enforcement Executive Forum appears to publish Books and Program Guides (I could not find empirically based research articles). There is an editorial board listed on the website, and William Lewinski is listed as a member of the editorial board. If this is a peer-reviewed journal, this means that Mr. Lewinski is one of the peer-reviewers for the information that is published by this forum. If

empirical research is published here and if William Lewinski (who has been shown to have a poor understanding of research design as assessed earlier in this declaration) is a reviewer, this suggests that the rigor of some of the research published by this forum, in addition to those published by Mr. Lewinski, may be substandard.

* Although these can be considered peer-reviewed, it is not clear that research published here fit the definition of being published in a peer-reviewed journal because these journals are usually academic and scientific periodicals. Also, the first article ("The Attention Study:...") published in *Law Enforcement Executive Forum* is an empirical study, and hence the peer reviewers would check the manuscript for accuracy and assess its validity and reliability based on methodology, procedures, and logic of the conclusions drawn. Because the article published contained unreliable methodology and procedures, and drew conclusions that could not be made reliably due to both the lack of data analyses and the poor research design, this article would likely be rejected, and not published, in a peer-reviewed journal or at least not one with a good impact score . It should be noted, however, that unlike the articles labeled "not peer reviewed", the research in this article ("The Attention Study..") did provide a detailed description of the methods/analyses.

Not Peer Reviewed

1. A magazine article titled "Biomechanics of lethal force encounters—officer movements" by W. Lewinski published in *The Police Marksman* magazine (2002).
2. Newsletter from "Force Science News" #176 and an online link to the Discovery Channel featuring "The Force Science Exhaustion Study" conducted by William Lewinski and colleagues which attempts to examine the relationship between memory recall and exhaustion.

3. A paper titled “Biomechanics of lethal force encounters: Officer’s and subject’s movement and speed (a compilation of three studies)” by Lewinski and Wilkins presented at the *Academy of Criminal Justice Sciences Annual Conference* in Boston, MA (2003). [Note: Only a short summary was submitted—an abstract—which could not be vetted by peer review to determine the quality and reliability of the work as an abstract is only a summary: the specific methods, results, and analyses are not included]. Most conferences do not engage in peer-review when accepting a presentation.

4. An article titled “An examination of police officer mental chronometry: “I swear... I don’t know how I shot him in the back” by Bumgarner, Lewinski, Hudson, and Sapp published in *The Scene: Journal of the Association for Crime Reconstruction* (date unknown). This does not qualify as a peer-reviewed article due to the lack of information in the article that would allow one to evaluate its reliability and validity. In fact, no data analyses are presented in Lewinski’s paper published here. Because of the lack of methodological detail and lack of statistical comparisons, this paper could not have been vetted as would typically be done in a peer-reviewed journal. If it had, it would have been rejected due to problems with reliability—particularly since data analyses were not carried out.

18. The articles listed as “not peer reviewed” would be considered “magazines” and are part of the “popular press”. They do not qualify as being “peer-reviewed” or as being “peer-reviewed journals”. Peer review is done by someone other than those employed by the publication and by experts who are not part of the editorial staff. Articles published in these media outlets do not conform to the procedures listed above in the definition of “peer-review” and “peer-reviewed journals”.

Dissertation not published in a peer-reviewed journal

19. A copy of William Lewinski's dissertation (1988) published by University Microfilms International as partial fulfillment for a Ph.D. in Police Psychology from Union Institute & University in Cincinnati. See evaluation of this dissertation (attached). The dissertation is included as an attachment to further demonstrate Mr. Lewinski's poor understanding of research design, and to demonstrate the consistency with which Mr. Lewinski draws conclusions that are not based on the data and/or are not possible given the research design.

III. Unreliable Statements in William Lewinski's Report.

20. Claims under "Report" concerning memory (points 5 and 6). In contrast to William Lewinski's opinion, all of the research on memory that I am familiar with suggest that one's statements would be more accurate immediately after the incident as opposed to later, regardless of whether recall/recognition involved a stressful event (see also Lewinski's statement in "report"- point 4). The longer time that goes by, the more gaps there are in memory, and the more likely one is to fill in those gaps with information that might be based on logic, stereotypes, or fit schemas of similar situations—which can be inaccurate. Unless Mr. Lewinski is a specialist in the area of false memories, or the affects of stress on memory, he is not qualified to make statements related to false memories or stress and memory at the level of detail he does. Detailed information about how stress, time, visiting the stress-incident location, or other factors might lead to specific types of false memories (e.g., false sequencing of events, etc.) requires expertise on this subject. My statements are based on general knowledge on the topic (as I teach this topic in my graduate-level cognition course), but I would not purport to be an expert on the

subject of false memory.

21. Claims under “Report” concerning memory (point 6). Mr. Lewinski’s statement that “extended time between the incident and interview allow for some form of memory consolidation . . .” is technically correct. The key here is the part of his statement “some form” of memory consolidation. However, synaptic consolidation only takes minutes to hours for new information to stabilize into memories—these are what we would typically call “long-term memories”. Also, Mr. Lewinski alludes here that memory will be worse soon after the incident vs. later—again, however, this is not consistent with the large literature on long-term memory.

22. Claims under “Report” concerning memory (point 7). Also, Mr. Lewinski’s opinion that individuals who have an emotionally distressing incident tend to avoid “rehearsal” of the incident—especially the distressing part, may be true. However, it is also true that the distressing parts of the event become intrusive—that is, these parts of the event are difficult to suppress or forget. Rehearsal of the event may actually increase false memories, as one may tend to fill in gaps in his/her memory during rehearsal with information that may logically fit based on one’s schema of the event.

23. Claims under “Report” (point 8). I could not evaluate as I could not comprehend what Mr. Lewinski’s opinion was here.

24. Claims under Action/Reaction (point 2). William Lewinski’s opinions are based on unreliable procedures (unreliable subtraction logic) and unreliable data published by him which appears in a popular press magazine (non-peer reviewed) called *The Police Marksman* and on the go no-go study published in the *Journal of the Association for Crime Scene Reconstruction*. (See evaluation of research documents 4, 5, and 6 under the first and second section of this

declaration and Attachment 10 and 11).

25. Claims under Action/Reaction (point 3). The statement “The decision to start shooting and actually pull the trigger are linked yet separate activities” is not a reliable statement. As mentioned in the analysis of Lewinski’s papers, he makes the faulty assumption that these processes (i.e., decision and motor processes) are discrete, and hence do not overlap in time. He falsely assumes these activities can be separated through “subtractive logic” which demonstrates that Mr. Lewinski has little knowledge about mental chronometry as well as biomechanics (see first section of this declaration and relevant attachments). His opinion also directly refers to data in his published papers above (e.g., studies 4, 5, and 6 listed in section 1 of this declaration) which are based on unreliable methods, data, and conclusions. Research on mental chronometry shows that most actions (particularly those that are executed quickly) begin before the decision processes involved in evaluating the situation are completed. In other words, the processes overlap such that responding can often occur based on “partial” decision information—as such the response execution stage can begin before the decision processes are completed. (See Attachments 10 and 11).

26. Claims under Action/Reaction (point 4). Mr. Lewinski’s opinion is that Mr. Glenn was shot in the back because of the following. Mr. Glenn’s movement toward his parent’s house led to the officers’ decision to shoot at Mr. Glenn, but they could not engage in the motor act of shooting until Mr. Glenn had turned around to run toward his grandmother’s house. However, no timing is mentioned by Mr. Lewinski here, and as mentioned above (and in section 1 of this declaration), he knows little about mental chronometry. One can begin to pull the trigger before information relevant to pull the trigger has been fully evaluated (it depends on the

officer's criterion to shoot). Refer to my response to Lewinski's opinion in Claims under Action/Reaction (point 2).

27. Claims under Action/Reaction (point 5). Mr. Lewinski's opinion that "once someone is engaged in and focused on an action it takes more time to perceive a change in the elements that started the action and then change the behavior in which they [the officers] are already engaged". As one who was trained and conducts research in visual attention, I can confidently say that this statement is incorrect. Attention is known to facilitate information processing, and attending to the target (Mr. Glenn) and where it is moving in order to shoot at it, should take "less time" to perceive compared to when attention is focused on other information. In short, this opinion by Lewinski is neither valid nor reliable. Furthermore, Mr. Lewinski provides misleading information to support this opinion by describing a driving scenario. He describes that "the more the driver is focused on driving, or talking with someone in the car or on the cell phone, etc., the less the driver is focused on the traffic light. However, this example does not fit the scenario of the officers attending to the target in which they are shooting; in this case, the officers are focusing their attention on the target. In the driving example, the driver is focused on distracting information, and is not focused on the target of the traffic light. Also, the skill of pulling a trigger should be highly automatic for a police officer, which should allow the officer's attention to stay focused on the target in which he/she is shooting. More generally, I believe that the opinions made here by Mr. Lewinski demonstrate that he does not consistently support his statements with information that is directly relevant to the case. Thus, his opinions can be unreliable. This same problem is apparent in his research articles—the data he reports and conclusions he draws are not consistent with the purpose he outlines in his studies and hence his

conclusions are unreliable (e.g., see section 1 in this declaration along with Attachments 12, 13, and 14).

28. Other Claims under Action/Reaction (point 5). Mr. Lewinski suggests that the officers did not withhold their fire because the officers did not have a “warning” that they had to stop shooting. However, Mr. Lewinski neglects the possibility that Mr. Glenn’s “retreat” from the gunfire could have served as a “warning” to stop shooting. Based on my knowledge of the attention literature, if one was focused on shooting at Mr. Glenn, then Mr. Glenn’s retreat should have been processed quite quickly compared to cases in which visual attention was directed elsewhere.

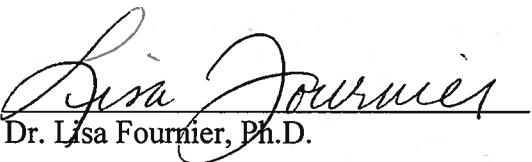
29. Of less importance, but relevant, is the incorrect use of the term “attentional blindness”—the correct term is “inattentional blindness”—attention is not blind.

Overall Summary:

30. It is my understanding that to be qualified as an expert witness, one’s testimony has to be relevant and reliable. I realize that “expert” does not necessarily mean than one publishes in the research area. However, in Mr. Lewinski’s case, many of his opinions in this case are based on unreliable and invalid studies that he himself has conducted—studies in which he has erroneously described as published in “peer reviewed” articles in a declaration in a different case. Also, the unreliable methods and conclusions drawn in his research studies, particularly concerning mental chronometry and biomechanics (i.e., decision time), demonstrate that he has very little knowledge of these areas—and is not an expert. Many of the opinions stated in his report regarding attention and memory appear to be based on flawed logic or a misunderstanding of the scientific literature that exists on the topic. Moreover, much of the

information and logic Mr. Lewinski uses to support his opinions in this case are either irrelevant or are unreliable. Based on my evaluation, it is my opinion that Mr. Lewinski is not a reliable witness in this case.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct, and that this Declaration was executed on the 23rd day of May, 2012, at Pullman, Washington.



Dr. Lisa Fournier, Ph.D.